

Amendments to the Claims:

This following listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (currently amended) A method of operating an optical receiver system, said method comprising:

receiving an optical signal;

converting said optical signal to an electrical signal;

automatically identifying a clock rate of said electrical signal through a clock recovery circuit including a phase-locked loop; and

using said identified clock rate to select a signal type of said optical signal from a set of possible signal types.

2. (currently amended) The method of claim 1 wherein automatically identifying said clock rate comprises:

attempting iteratively to lock to a bit clock of said electrical signal using a plurality of clock rates;

upon achieving lock, determining a current one of said plurality of clock rates to be said identified clock rate.

3. (original) The method of claim 2 wherein automatically identifying said clock rate comprises :

evaluating a frequency difference between a bit clock recovered from said signal and a reference clock;

determining said identified clock rate based on said difference.

4. (original) The method of claim 1 further comprising:

based on said signal type, selecting a traffic processing block to further process said electrical signal.

5. (original) The method of claim 1 further comprising:
based on said signal type, selecting a performance monitoring method to monitor quality
of said optical signal.
6. (original) The method of claim 1 wherein one of said possible signal types is SONET
OC-192.
7. (original) The method of claim 1 wherein one of said possible signal types is SDH
STM-64.
8. (original) The method of claim 1 wherein one of said possible signal types is 10
Gigabit Ethernet having a bit rate of 10.325 Gbps.
9. (original) The method of claim 1 wherein one of said possible signal types is G.709
having a bit rate of 10.709 Gbps.
10. (original) The method of claim 1 wherein one of said possible signal types is 10
Gigabit Ethernet employing Forward Error Correction and having a bit rate of 11.090 Gbps.
11. (currently amended) Apparatus for operating an optical receiver system, said
apparatus comprising:
a clock recovery block that recovers a clock signal from a received optical signal; and
a control processor that directs said clock recovery block to attempt iteratively to lock to
said optical signal using a plurality of clock rates, and that upon achieving lock using a clock rate
matching that of said optical signal, employs said matching clock rate to determine a signal type
of said optical signal.
12. (original) The apparatus of claim 11 wherein said control processor, based on said
signal type, selects a traffic processing block to further process said electrical signal.

13. (original) The apparatus of claim 11 wherein said control processor, based on said signal type, selects a performance monitoring block to monitor quality of said optical signal.

14. (original) The apparatus of claim 11 wherein one of said possible signal types is SONET OC-192.

15. (original) The apparatus of claim 11 wherein one of said possible signal types is SDH STM-64.

16. (original) The apparatus of claim 11 wherein one of said possible signal types is 10 Gigabit Ethernet having a bit rate of 10.325 Gbps.

17. (original) The apparatus of claim 11 wherein one of said possible signal types is G.709 having a bit rate 10.709 Gbps.

18. (original) The apparatus of claim 11 wherein one of said possible signal types is 10 Gigabit Ethernet employing Forward Error Correction and having a bit rate of 11.090 Gbps.

19. (currently amended) Apparatus for operating an optical receiver system, said apparatus comprising:

a clock recovery block that receives a clock signal from a received optical signal and measures a difference of rate between said clock signal and a reference clock; and

a control processor that, based on said difference of rate from said clock recovery block, determines a signal type of said received optical signal.

20. (currently amended) The apparatus of claim ~~14~~ 19 wherein said control processor, based on said signal type, selects a traffic processing block to further process said electrical signal.

21. (original) The apparatus of claim 19 wherein said control processor, based on said signal type, selects a performance monitoring block to monitor quality of said optical signal.

22. (original) The apparatus of claim 19 wherein one of said possible signal types is SONET OC-192.

23. (original) The apparatus of claim 19 wherein one of said possible signal types is SDH STM-64.

24. (original) The apparatus of claim 19 wherein one of said possible signal types is 10 Gigabit Ethernet having a bit rate of 10.325 Gbps.

25. (original) The apparatus of claim 19 wherein one of said possible signal types is G.709 having a bit rate 10.709 Gbps.

26. (original) The apparatus of claim 19 wherein one of said possible signal types is 10 Gigabit Ethernet employing Forward Error Correction and having a bit rate of 11.090 Gbps.

27. (currently amended) Apparatus for operating an optical receiver system, said apparatus comprising:

means for receiving an optical signal;

means for converting said optical signal to an electrical signal;

means for automatically identifying a clock rate of said electrical signal through a clock recovery circuit including a phase-locked loop; and

means for using said identified clock rate to select a signal type of said optical signal from a set of possible signal types.